

**Notice of Allowability**

Application No.:

10/715,088

Examiner

Alicia M Harrington

Applicant(s)

PIEHLER, EBERHARD

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed on 11/17/03.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ The drawings filed on 17 November 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 1103
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 1104.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

Georgia Epps  
Supervisory Patent Examiner  
Technology Center 2800

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Gerald H. Kiel on 11/10/04.

3. The application has been amended as follows:

**In the claims:**

1. (Currently amended) An arrangement for the visualization of information in a motor vehicle, comprising:

an optical device for projecting at least one display image for forming a virtual image in front of or in an area of a windshield of the vehicle, wherein microchips such as DMDS or LCOs are provided as image-generating elements, and wherein an intermediate imaging is realized for the purpose of illuminating the pupil plane; and  
a diffusion screen which enlarges the radiating angle being arranged in the intermediate image plane and/or an apparatus for splitting the light flow into partial light flows being located between the optical device and the pupil plane, wherein a partial light flow is associated with the left eye and a partial light flow is associated with the right eye.

12. (Currently amended) The arrangement for the visualization of information in a motor vehicle according to claim 11, wherein the elements for directional orientation of the partial light flows have a focusing or dispersing effect.

Art Unit: 2873

**In the specification:**

Insert between sections 9 and 10 the following heading:

**Summary of Invention**

**In the abstract:**

[0033] The invention is directed to an arrangement for the visualization of information in a motor vehicle, comprising wherein an optical device for projecting at least one display image for forming a virtual image in front of or in an area of a windshield of the vehicle, wherein microchips such as DMDS or LCOs are used as image-generating elements. According to the invention, an apparatus for splitting the light flow into partial light flows is provided for the purpose of illuminating the pupil plane.

4. The following is an examiner's statement of reasons for allowance: Regarding claim 1, prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the dependent claims, in such manner that a rejection under 35 U.S.C 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in independent claims, which include an arrangement for the visualization of information in a motor vehicle comprises a diffusion screen which enlarges the radiating angle being arranged in the intermediate image plane and /or an apparatus for splitting the light flow into partial light flows as claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2873

*Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Welch (US 5,694,230) discloses diffractive optical element as combiners;

Furuya(US 2002/0021500) discloses a display unit for vehicles; and

Koenig et al (US 6,456,260) discloses an indicating device for vehicles.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M Harrington whose telephone number is 571 272 2330.

The examiner can normally be reached on Monday - Thursday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571 272 2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



AMH

Alicia M Harrington  
Examiner  
Art Unit 2873



Georgia Epps  
Supervisory Patent Examiner  
Technology Center 2800